



## 230Vac Radio Switch For Underfloor Heating

### Features:

- MULTILINK-RX will output a 230Vac signal when any MULTILINK-TX has a 230Vac input
- Up to 10 MULTILINK-TX can Operate a Single MULTILINK-RX
- Operating Range:
  - Up to **3Km** line of sight.
  - Up to **500m** in buildings
- Watchdog Signal ensures reliability
- Plug and Play operation
- Easy Install via Screw Terminals
- High Quality UK manufacture
- Weatherproof IP68 Enclosures
- Operates from 110V or 230Vac



### Description:

**MULTILINK** is a Radio link which replaces “switched live” cabling from one or many locations (manifolds) back to one point (heat pump).

When power is switched (on /off) at any MULTILINK-TX (Transmitter), an RF signal is sent to the MULTILINK-RX (Receiver) which switches a 230Vac output accordingly.

MULTILINK is perfect for after market upgrades or afterthought on installs and removes the need to lay cables.

Using an “easy pairing” process up to 10, MULTILINK-TX units can be paired to a single MULTILINK-RX.

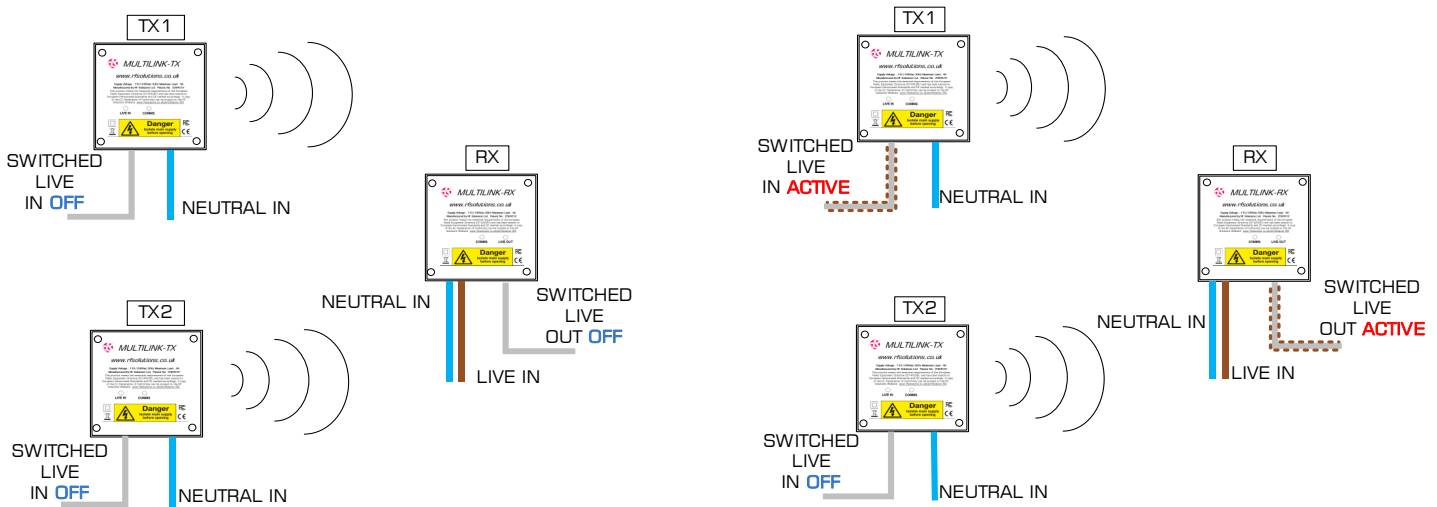
MULTILINK utilises the RF Solutions state of the art RF-LoRa spread Spectrum Frequency hopping RF transceiver design to achieve a the highest performance / Range available from any Radio link.

| Part Number   | Description                                            |
|---------------|--------------------------------------------------------|
| MULTILINK-8T1 | MULTILINK Transmitter 868MHz                           |
| MULTILINK-8R1 | MULTILINK Receiver unit 868MHz 230Vac Switching output |

## System Operation

When any transmitter(s) are active the receiver will provide a LIVE output

Only when ALL transmitters are INACTIVE, then the receiver will switch OFF its output.



Multilink incorporates a “smart watchdog” failsafe, the receiver knows the status of all transmitters at all times. Whilst LIVE is present at a MULTILINK Transmitter a background “Watchdog” signal is intermittently sent (every ~30 seconds). MULTILINK Receiver will switch its output OFF if it receives all the OFF commands from transmitters, or, has failed to receive any Watchdog signal within a two minute period from any paired transmitter.

## Technical Specifications:

Dimensions: 88 x 88 x 54mm  
Operating Temperature: 0 to +70° Celsius.

| Electrical Characteristics                         | Min | Typical | Max | Units |
|----------------------------------------------------|-----|---------|-----|-------|
| Supply Voltage TX/RX:                              | 220 | 230     | 250 | Vac   |
| Operating Frequency*                               |     | 869.50  |     | MHz   |
| RF Output power                                    |     |         | +20 | dBm   |
| Bandwidth (Spreading Factor—LoRA Mode)             |     | 60      |     | KHz   |
| Maximum switching load (RX)                        |     | 1000    |     | W     |
| Time delay from Tx Transmit to Rx Relay operation: |     |         |     |       |
| FSK                                                |     | 1       |     | Secs  |
| Mode 3                                             |     | 3       |     | Secs  |

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This RF Solutions product meets the essential requirements of the European Radio Equipment Directive 2014/53/EU and has been tested to European Harmonised Standards and CE marked accordingly.

Please note that if using this product in LORA Modes 5,6,7 in "Continuous Transmission Mode" the user must only operate for 6 mins in every hour in order to comply with Duty Cycle regulations.

A copy of the EU Declaration of Conformity can be located on the RF Solutions Website, [www.rfsolutions.co.uk/certification-i59](http://www.rfsolutions.co.uk/certification-i59).

MULTILINK is a professional use product and should only be installed by a competent person. The product must be **FIXED** to the wall (EN60950 4.1)

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